

CLAIMS

What is claimed is:

- 1 1. A rotary press comprising:
2 a first cylinder having a pair of cylinder segments which can be rotated
3 independently of each other;
4 a pair of electric motors connected to respective said cylinder segments
5 by respective said drive connections so that said cylinder segments can be driven
6 independently of one another;
7 a second cylinder; and
8 a dedicated electric motor which drives said second cylinder
9 synchronously with said first cylinder.
- 1 2. A rotary press as in claim 1 further comprising:
2 a further cylinder;
3 a spur gear fixed to said further cylinder
4 a spur gear fixed to one of said cylinder segments of said first cylinder and
5 having a drive connection to said spur gear fixed to said further cylinder.
- 1 3. A rotary press as in claim 1 further comprising:
2 a further cylinder which rotates synchronously with said first cylinder, said
3 further cylinder having a pair of cylinder segments which can be rotated independently
4 of each other; and

5 a pair of electric motors connected to respective said cylinder segments of
6 said further cylinder by respective said drive connections so that said cylinder segments
7 of said further cylinder can be driven independently of one another.

1 4. A rotary press comprising:

2 a folding cylinder having first and second cylinder segments which can be
3 rotated independently of each other, said first cylinder segment bearing holding
4 elements, said second cylinder bearing folding blades;

5 a pair of electric motors connected to respective said cylinder segments
6 by respective said drive connections so that said cylinder segments can be driven
7 independently of one another;

8 a folding jaw cylinder; and

9 at least one dedicated electric motor which drives said folding jaw cylinder
10 synchronously with said folding cylinder.

1 5. A rotary press as in claim 4 wherein said folding jaw cylinder
2 comprises first and second cylinder segments which each bear folding jaws and can
3 rotate relative to each other, each of said cylinder segments of said folding jaw cylinder
4 being driven by a respective said dedicated electric motor so that said cylinder
5 segments of said folding jaw cylinder can be driven independently of one another, said
6 press further comprising:

7 a gripper folding blade cylinder comprising a first cylinder segment bearing
8 grippers and a second cylinder segment bearing folding blades; and

9 a pair of electric motors connected to respective said cylinder segments of
10 said gripper folding blade cylinder by respective said drive connections so that said
11 cylinder segments of said gripper folding blade cylinder can be driven independently of
12 one another.

1 6. A rotary press as in claim 4 further comprising:
2 a knife cylinder;
3 a spur gear fixed to said knife cylinder;
4 a spur gear fixed to one of said cylinder segments of said folding cylinder
5 and having a drive connection to said spur gear fixed to said further cylinder; and
6 a pinion connected to said electric motor driving said first segment of said
7 folding cylinder, said pinion engaging one of said spur gears.

1 7. A rotary press as in claim 4 further comprising:
2 a knife cylinder; and
3 an electric motor which drives said knife cylinder synchronously with said
4 folding cylinder.

1 8. A rotary press as in claim 4 further comprising a motor control
2 system for presetting the angular positions of the driven cylinders, said motor control
3 system comprising a computing and storage unit in which said angular positions are
4 stored, said computing and storage unit having an input side connected to said electric
5 motors.

1 9. A rotary press as in claim 4 further comprising means for limiting
2 rotation of at least one of said cylinders and said cylinder segments relative to a desired
3 position.

1 10. A rotary press as in claim 9 wherein said means for limiting rotation
2 comprises spur gears fixed to at least one of said cylinders and said cylinder segments,
3 said spur gears each having teeth with tooth flanks, said spur gears meshing with
4 rotational flank play and without said tooth flanks touching one another.

1 11. A rotary press as in claim 4 wherein said cylinder segments of each
2 said cylinder having segments comprise stops which limit relative rotation of said
3 cylinder segments.

1 12. A rotary press as in claim 4 wherein said cylinder segments of each
2 said cylinder having segments comprise hardware limit switches which limit relative
3 rotation of said cylinder segments.

1 13. A rotary press as in claim 4 further comprising a position control
2 system for said electric motors, said position control system containing desired limiting
3 values for limiting the mutual rotatability of the cylinder segments and the cylinders.

1 14. A rotary press as in claim 4 wherein at least one of said electric
2 motors is configured as a torque motor.

1 15. A rotary press as in claim 1 further comprising a motor control
2 system for presetting the angular positions of the driven cylinders, said motor control
3 system comprising a computing and storage unit in which said angular positions are
4 stored, said computing and storage unit having an input side connected to said electric
5 motors.

1 16. A rotary press as in claim 1 further comprising means for limiting
2 rotation of at least one of said cylinders and said cylinder segments relative to a desired
3 position.

1 17. A rotary press as in claim 16 wherein said means for limiting
2 rotation comprises spur gears fixed to at least one of said cylinders and said cylinder
3 segments, said spur gears each having teeth with tooth flanks, said spur gears meshing
4 with rotational flank play and without said tooth flanks touching one another.

1 18. A rotary press as in claim 1 wherein said cylinder segments of each
2 said cylinder having segments comprise stops which limit relative rotation of said
3 cylinder segments.

1 19. A rotary press as in claim 1 wherein said cylinder segments of each
2 said cylinder having segments comprise hardware limit switches which limit relative
3 rotation of said cylinder segments.

- 1 20. A rotary press as in claim 1 further comprising a position control
- 2 system for said electric motors, said position control system containing desired limiting
- 3 values for limiting the mutual rotatability of the cylinder segments and the cylinders.